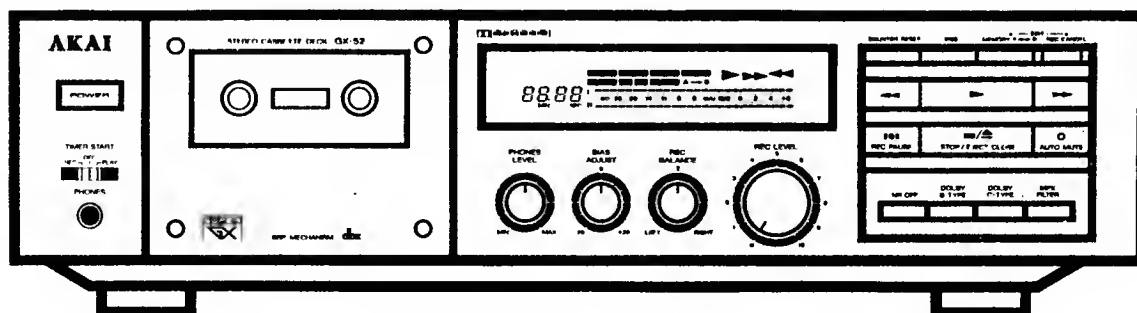


AKAI SERVICE MANUAL



STEREO CASSETTE DECK

MODEL GX-52

SPECIFICATIONS

Track system	4 track 2 channel stereo	T.H.D.	Less than 0.8%
Heads	Twin field supper GX head for Recording and Playback x 1 Erase head x 1	Frequency response	
Motors	Direct drive EG servo motor for Capstan drive x 1 DC motor for reel drive x 1 DC motor for cam drive and Tape eject/loading x 1	Normal	25Hz to 17,000Hz ± 3 dB
Wow & flutter	0.027% WRMS (JIS), 0.045% (DIN)	CrO ₂	25Hz to 18,000Hz ± 3 dB
S/N (Metal)	59dB (Measured via tape with 3% THD recording level) Dolby B type NR switch ON: Improves up to 5dB at 1KHz, 10dB above 5KHz Dolby C type NR switch ON: Improves up to 15dB at 500Hz, 10dB at 1KHz to 10KHz	Metal	251Hz to 20,000Hz ± 3 dB
		Input sensitivity/Impedance	
		LINE IN	70mV/47kohms
		Output sensitivity/Impedance	
		LINE OUT	388mV/2.7kohms
		Phones	1.3mW (8ohms)
		Power requirements	120V, 60Hz for Canada 220V, 50Hz for Europe except UK 240V, 50Hz for UK 110/120/220/240V, 50/60Hz convertible for other countries
		Dimension	425(W) x 112(H) x 352(D)mm (16.7 x 4.4 x 13.9 inches)
		Weight	6.5Kg (14.3lbs)

*For improvement purpose, specifications and design are subject to change without notice.

*Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"Dolby" and double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

★SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

- Parts identified by the Δ symbol parts are critical for safety.
Replace only with parts number specified.
- In addition to safety, others parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
These must also be replaced only with specified replacement.
Examples: RF cables, noise blocking capacitors, noise blocking filters, etc.,
- Use specified internal wiring. Note especially,
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
- Use specified insulating materials for hazardous live parts. Note especially,
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation Seats for transistors
 - 5) Plastic Screws for fixing microswitch (especially in turntable)
- When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



- Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

- Check that replaced wires do not contact sharp edged or pointed parts
- Also check areas surrounding repaired locations
- Use care that foreign objects (screws, solder droplets, ect.) do not remain inside the set

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10M ohms, but for equipment with external antenna terminals (tuner, receiver, etc. and is intend for \square or Δ , specified insulation resistance should be headphone jacks line in out jacks etc. more than 2.2M ohms (ground terminals, microphone jacks).

★INFORMATION

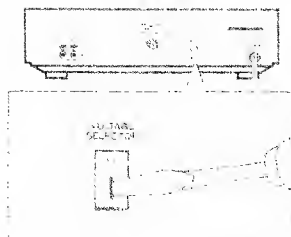
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below

Symbols	Principal Destinations
Δ	USA
UK	UK
C	Canada
E	Europe (except UK)
J	Japan
A	Australia
W	W. Germany only
U	Universal Area
C	Custom version

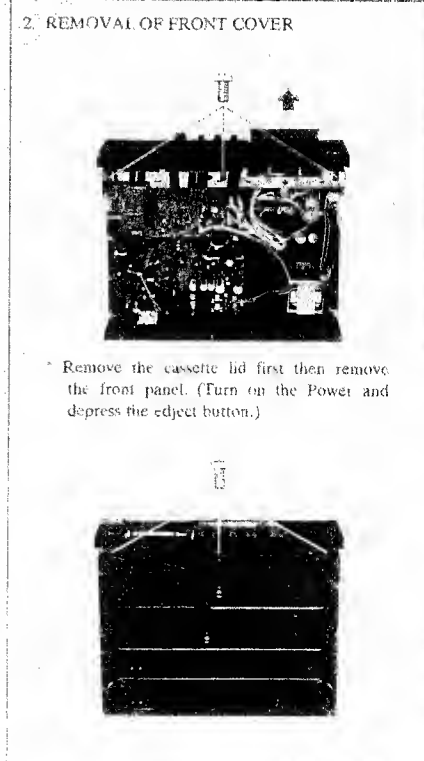
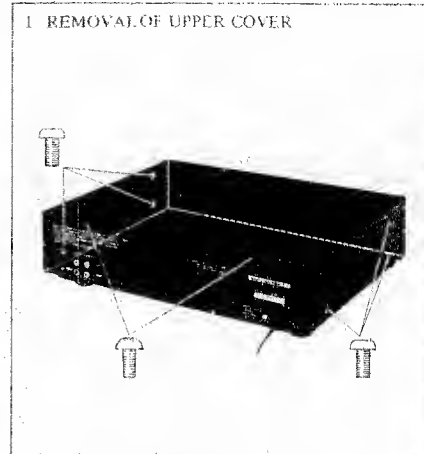
VOLTAGE CONVERSION (Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel with a screwdriver so that the correct voltage is indicated.

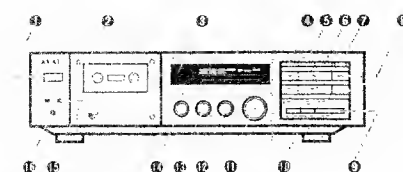


I. DISASSEMBLY

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.



II. CONTROLS



- POWER Switch**
To turn ON and OFF the power.
- Cassette lid and cassette holder (Power assisted)**
Load a cassette tape here. To open, press the \blacksquare/Δ button. To close, press once again. Do not manually open this cassette holder, as it may damage your equipment.
- FL (Fluorescent) Display**
Tells you what the cassette deck is doing.
- COUNTER RESET button**
To reset the digital counter to "00.00".
- IPSS button**
To select playback with the IPSS system.
- A \leftrightarrow B MEMORY button**
For memorization of a selection(s) or part of a selection that you wish to hear repeatedly. Also used with the recording cancel system for erasure of unwanted parts.
- REC CANCEL button**
To cancel recording and rewind tape to the first detectable blank space of tape. Convenient for re-recording a section of tape.
- Operating buttons**
For playback and recording operations.
Press the \blacksquare/Δ button to open and close the cassette holder.
- MPX (Multiplex) FILTER switch**
To turn on and off the multiplex filter.
- Noise reduction selector (NR OFF, DOLBY B and DOLBY C)**
To select noise reduction for recording and playback purposes.
- REC LEVEL control**
To set recording levels. The level adjustment is the same amount for both right and left channels.
- REC BALANCE control**
To set the left and right channel balance of recording input levels.
- BIAS ADJUST control**
To set the recording bias current. The bias adjustment range is between -20% and $+20\%$ of the proper bias current of each tape position. If using a reference tape recommended for use with Akai cassette decks, set this control to the center click "0" position.
- PHONES Level control**
To adjust the output level of the PHONES jack.
- TIMER START Switch**
For absentee recording and timed playback.
- PHONES jack**
To listen through a pair of headphones, connect them to this jack.

III. PRINCIPAL PARTS LOCATION

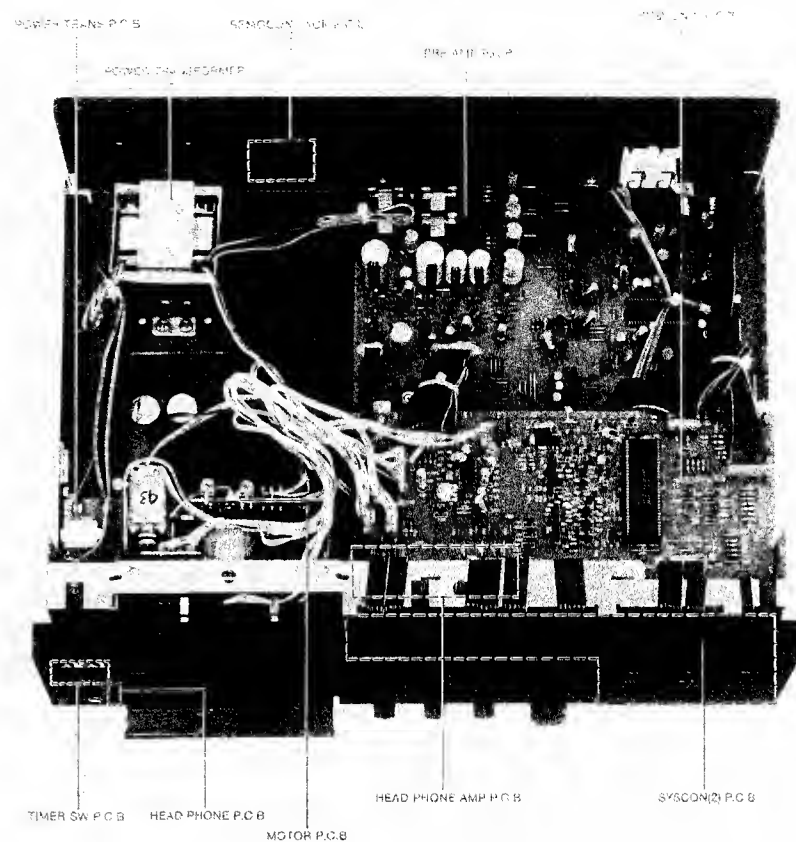


Fig. 3-1 Top View

IV. MECHANICAL ADJUSTMENT

4-1. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 4-1)

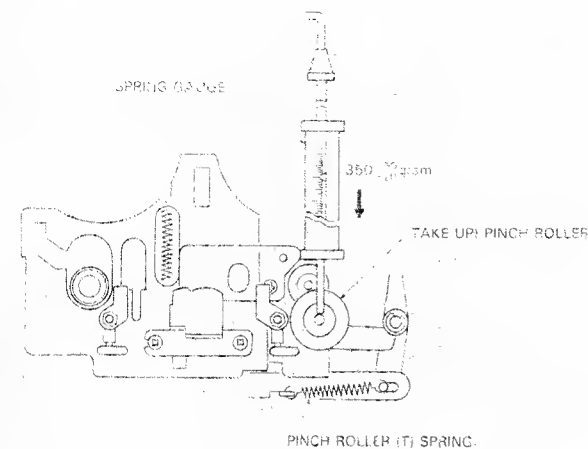


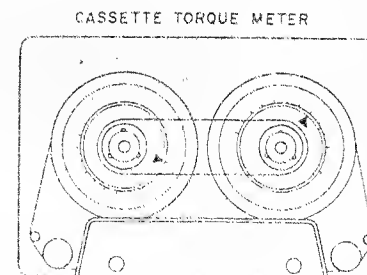
Fig. 4-1.

Put in PLAY mode, push pinch roller arm down with the spring gauge push the pinch roller 1 or 2 mm from the capstan and release slowly. Read the spring gauge at the moment the pinch roller touches the capstan and begins to rotate.

Specified pressure: 350 ± 20 gram (Take up)

If there is no measurement obtained, replace the pinch roller spring.

4-2. WINDING TORQUE MEASUREMENT IN EACH MODE (Refer to Fig. 4-2)



Insert a cassette torque meter (AJ-751197) and measure in each mode. For First Forward and Rewind, measure at the end of the tape has stopped running.

PLAY mode
Take up Torque : 40 ± 20 g-cm

Back Tension Torque : 10 ± 10 g-cm

FIRST FORWARD, REWIND mode

Take up Torque : 120 ± 30 g-cm

Fig. 4-2.

4-3 HOW TO INSTALL VOLUME (VR901) AND CAM WHEEL

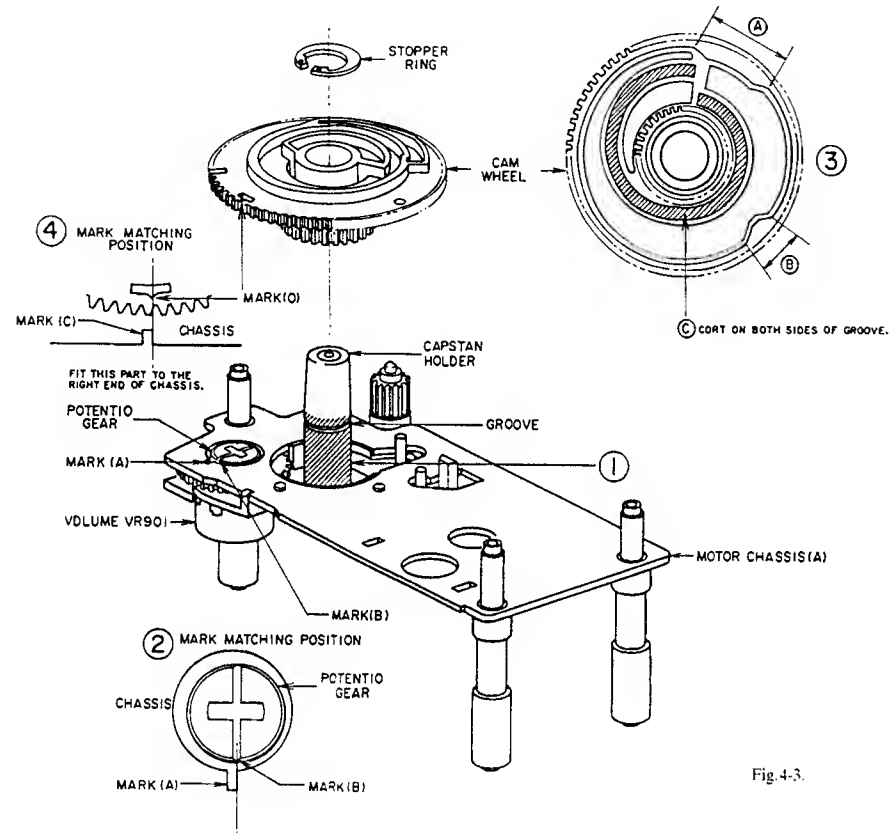


Fig.4-3.

- 1) Apply Molybdenum coat on the capstan holder
Apply Molybdenum coat on the area of 360° from the bottom to the upside 2mm of groove as shown in the figure. (Fig.4-3-①)
- 2) Fitting position volume (potentio gear)
Fit the right end of Mark (A) to the center of Mark (B) as shown in the figure. (Fig. 4-3-②)
- 3) Apply Molybdenum coat on the (A), (B) and (C) shown in the Fig.4-3-③
- 4) Set the cam wheel on the capstan wheel (ensure that the cam wheel and potentio gear are meshed properly)

- When the cam wheel is set properly, fit the center of Mark (D) to the right end of Mark (C). (Fig.4-3-④)
- 5) Fit the stopper ring in the groove of the capstan holder.

CAUTIONS:

1. Make sure that the teeth on the periphery of cam wheel and the cam are absolutely free from any scratch, cut, etc.
2. Make sure that Molybdenum coat is applied on the specified area only.

4-4 POTENTIOMETER PRESET VOLTAGE ADJUSTMENT (Refer to fig 4-4 to 4-5)

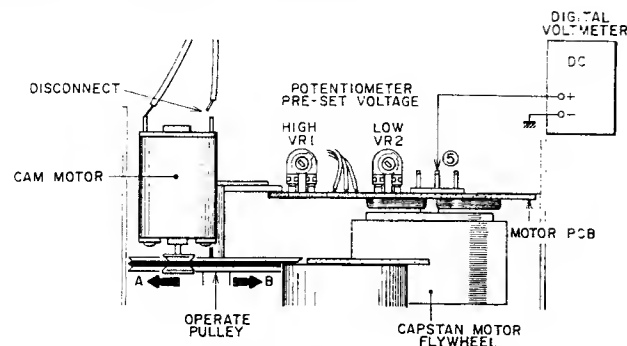


Fig. 4-4.

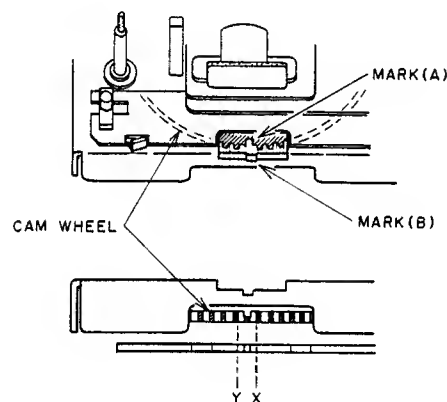


Fig. 4-5.

1) LOW VOLTAGE ADJUSTMENT

- With power OFF, remove the connecting cord of the cam motor and turn the operate pulley fully with your fingers in A direction. (EJECT DIRECTION)
- Connect the digital voltmeter as shown in fig. 4-4.
- With power ON, adjust VR2 so that the voltage reading will be 1.15V (DC).

2) HIGH VOLTAGE ADJUSTMENT

- With power OFF, turn the operate pulley fully with your fingers in B direction. (PLAY DIRECTION)
- With power ON, adjust VR1 so that voltage reading will be 9.08V (DC).
- Repeat Items 1) and 2).
- a. With power OFF, connect the connecting cord of the motor.
- Remove the digital voltmeter.

- Remove the Cassette lid, Front panel and Bottom cover.

- Set power to ON.
- Adjust VR1 slightly so that the center of Marker (A) coincides with the center of Marker (B) (should be within the range between X and Y) at STOP Mode as shown in Fig. 4-5. (The marker (STOP) on the CAM WHEEL can be seen clearly by lighting it from the back.)
- Set the IPLS switch to ON.
- Confirm that head and pinch rollers do not move up and down when the FF and REW switches are alternately depressed.
- Turn the reel with fingers in STOP Mode to check that the brake works sufficiently. When the brake acts normally, the take-up reel does not turn clockwise while the supply reel does not rotate counterclockwise.

V. HEAD ADJUSTMENT

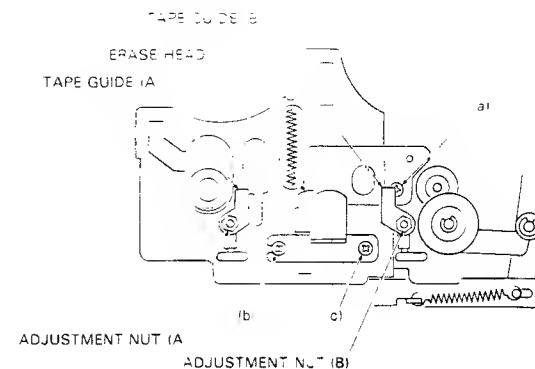


Fig. 5-1.

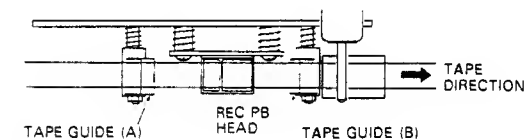


Fig. 5-2.

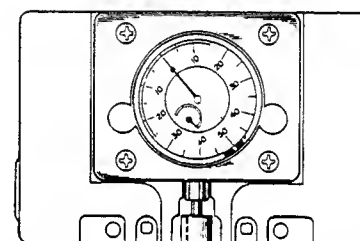


Fig. 5-3 Cassette Head Projection Gauge (AJ-751180)

5-1. REC/PB HEAD PROJECTION ADJUSTMENT

Take off the LID CASE and set the cassette head projection gauge (AJ 751180) and set to PLAY mode. Loosen the screw (a) and adjust so that the gauge indication at that time will be 3.2 ± 0.1 mm. After adjustment, apply paintlock on the screw (a).

5-2. TAPE GUIDE HEIGHT ADJUSTMENT

- Set the mirror cassette tape (AJ-751178) and set to PLAY mode.
- Adjust the tape guide (A) so that the parts of the erase head coming out of both sides of the tape (A and A') in Fig. 5-2 will be equal. For the adjustment, use the adjustment nut (A).
- Adjust the tape guide (B) so that the tape runs smoothly and is not hitched by the tape guide. For the adjustment, use the adjustment nut (B).
- After adjustment, paint-lock the adjustment nuts (A) and (B).

5-3. REC/PB HEAD HEIGHT ADJUSTMENT

- Set the mirror cassette tape and set to PLAY mode.
- Adjust the screws (b), (c) and (d) so that the upper edge of REC/PB head Lch core and the upper side of the tape is in alignment.
- Playback the head height adjustment tape (4 Track 1.000Hz) (AT-750775), and fine-adjust the screw (b), (c) and (d) so that the largest output is obtained for both channels.

5-4. REC/PB HEAD AZIMUTH ALIGNMENT ADJUSTMENT

- Playback a 10kHz Head Azimuth Alignment Tape (AT-750778) and adjust the screw (d) until the output levels of both channels are at maximum.
- Record a 10kHz, -26dBm signal from the audio frequency oscillator.
- Rewind and check for any fluctuation in the output level at playback.
- After adjustment, paintlock the screws (b), (c) and (d).

- NOTES:
- Be sure to clean the heads prior to head adjustment.
 - Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
 - Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.

VI. PRE AMP, SYSCON and dbx PCB ADJUSTMENT

EXAMPLE

STEP	ADJUSTMENT ITEM
1.	TEST TAPE, SUPPLY SIGNAL
2.	MODE
3.	ADJUSTMENT PARTS
4.	RESULT/REMARKS

Test Point
Adjustment part

II MPX FILTER
1. 19kHz, -6.0dBm
2. REC PAUSE
3. FL201 (Lch), FL201b (Rch)
4. Minimum level of millivolt Meter, MPX SW ON

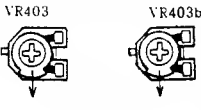
2 METER SENSITIVITY (0VU)
1. 1 kHz, Set the OSC output control, so that the LINE OUTPUT level is -6.0dBm.
2. REC PAUSE
3. LINE OUT, VR201 (Lch), VR201b (Rch)
4. 0VU segment light on. * See Note 2.

I TAPE SPEED
1. 3150 Hz (AT-751263)
2. PB
3. LINE OUT, VR1
4. 3150 ± 5Hz

9 METAL POSITION FREQUENCY RESPONSE
1. METAL blank tape, 1kHz, 10kHz, -26.0dBm.
2. REC/PB
3. LINE OUT, VR402
4. -26.0 ± 0.3dBm (1kHz, 10kHz) * See Note 2,3

8 CrO ₂ POSITION FREQUENCY RESPONSE
1. CrO ₂ blank tape, 1kHz, 10kHz, -26.0dBm
2. REC/PB
3. LINE OUT, VR401
4. -26.0 ± 0.3dBm (1kHz, 10kHz) * See Note 2,3.

6 BIAS DIP POINT
1. NORMAL blank tape.
2. REC
3. LINE OUT, T402
Connect a Digital DC voltmeter between JW106(+), and JW107(-).
4. Minimum level of DC range. * Before this adjustment, set VR403 and VR403b shown Fig 6-1



7 NORMAL POSITION FREQUENCY RESPONSE
1. NORMAL blank tape, 1kHz, 10kHz, -26.0dBm.
2. REC PB
3. LINE OUT, VR403 (Lch), VR403b (Rch)
4. -26.0 ± 0.3dBm (1kHz, 10kHz) * See Note 2,3

5 BIAS FREQUENCY
1. METAL blank tape
2. REC
3. T401
Connect a frequency counter between connector P401 and GND.
4. 100k ± 0.1kHz

3 PB LEVEL
1. 315 Hz (AT-750773)
2. PB
3. LINE OUT, VR102 (Lch), VR102b (Rch)
4. -6.0 ± 0.3dBm

4 PB LEVEL 10kHz
1. 10kHz (AT-750778)
2. PB
3. LINE OUT, VR101 (Lch), VR101b (Rch)
4. -21.0 ± 0.3dBm

10 REC LEVEL
1. NORMAL blank tape, 315Hz, -6.0dBm.
2. REC/PB
3. LINE OUT, VR301 (Lch), VR301b (Rch)
4. -6.0 ± 0.2dBm * See Note 2,3.

NOTES 1. All adjustments are without DOLBY, dbx, and MPX FILTER
2. Controls Setting:
Output volume: Max. Rec balance: Center click position.
Rec level volume: Max. Bias Adj. volume: Center click position.
3. Use the following cassette measuring tape:
NORMAL TAPE : MAXELL UD1 C-60
CrO₂ tape : TDK SA C-60
METAL TAPE : TDK MA C-60

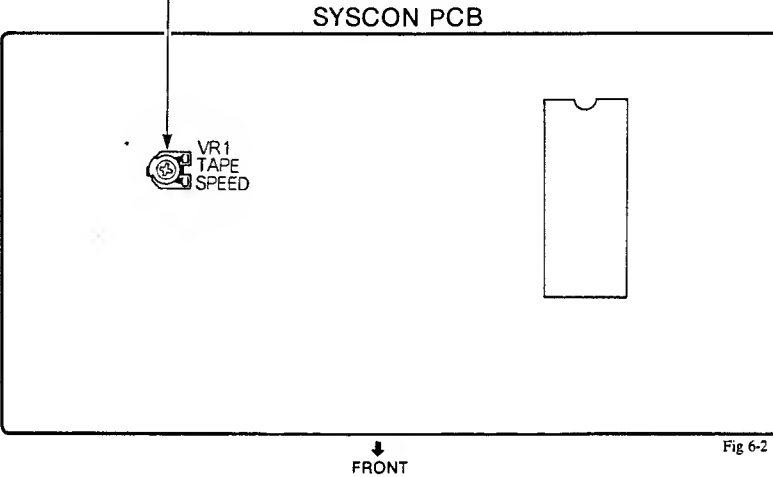
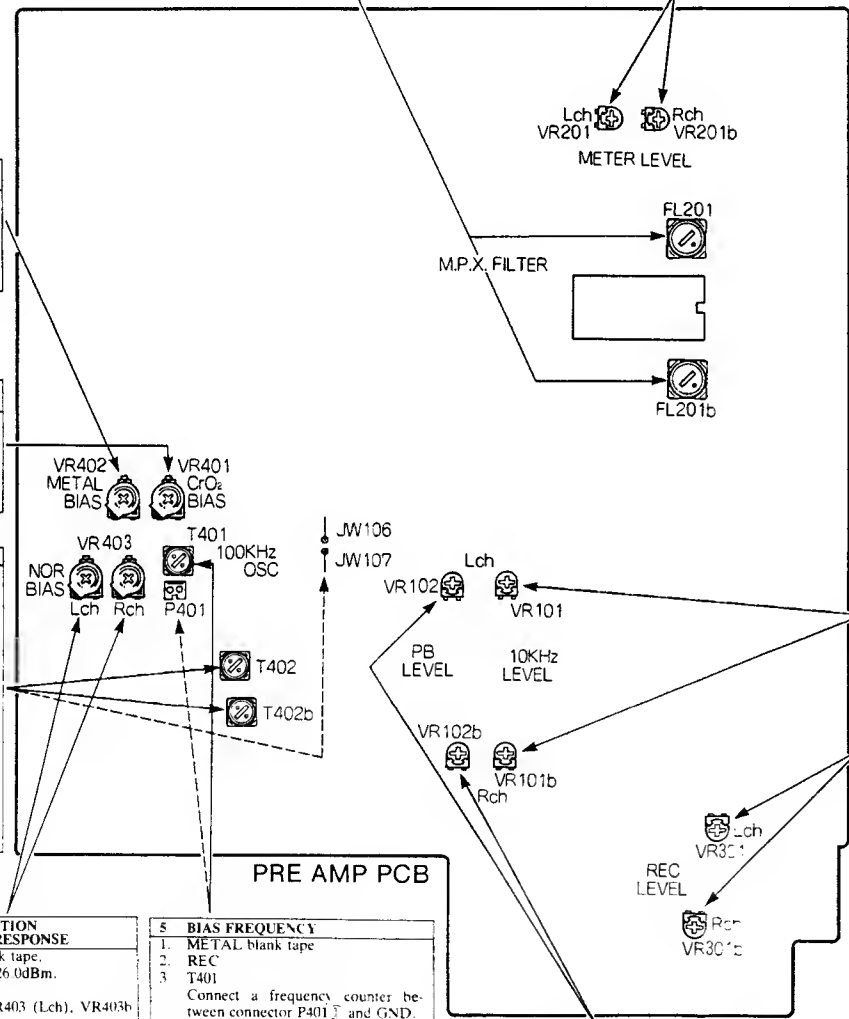


Fig 6-1

VII. PARTS LIST

ATTENTION

- When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
- Please make sure that Part No. is correct when ordering.
If not, a part different from the one you ordered may be delivered.
- Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

- This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
- The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
- Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
- How to read the Parts List.
 - Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20x035TL CMT
2-4	ZS-536488	BID20x085TL CMT
2-5	ZG-402895	SP CS ANGLE ADJUST

- SP (Service Parts) Classification
- A small "x" indicates that this part is not shown in the Photo or Illustration.
- This number corresponds with the individual parts index number in that figure.
- This number corresponds with the Figure Number.

b) PC Board

6. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-1C1	EI-324536	IC HD14049BP
6-1C2	EI-336801	IC MB8841-564M
6-C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
6-C1B	EC-350949	C MMY V 223M 250DC [J]
6-C1C	EC-338397	C MMY V 223M 125AC [C,A]
6-X1	EI-318384	OSC XTAL NC-18C

- Symbols for primary destination
- [A]: AAL(U.S.A.) [S]: SAA(Australia)
- [B]: BEAB(England) [U]: U/T(Universal Area)
- [C]: CSA(Canada) [V]: VDE(W. Germany)
- [E]: CEE(Europe) [Y]: Custom Version
- [J]: JPN(Japan)
- SP (Service Parts) Classification
- These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

- When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

△ (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

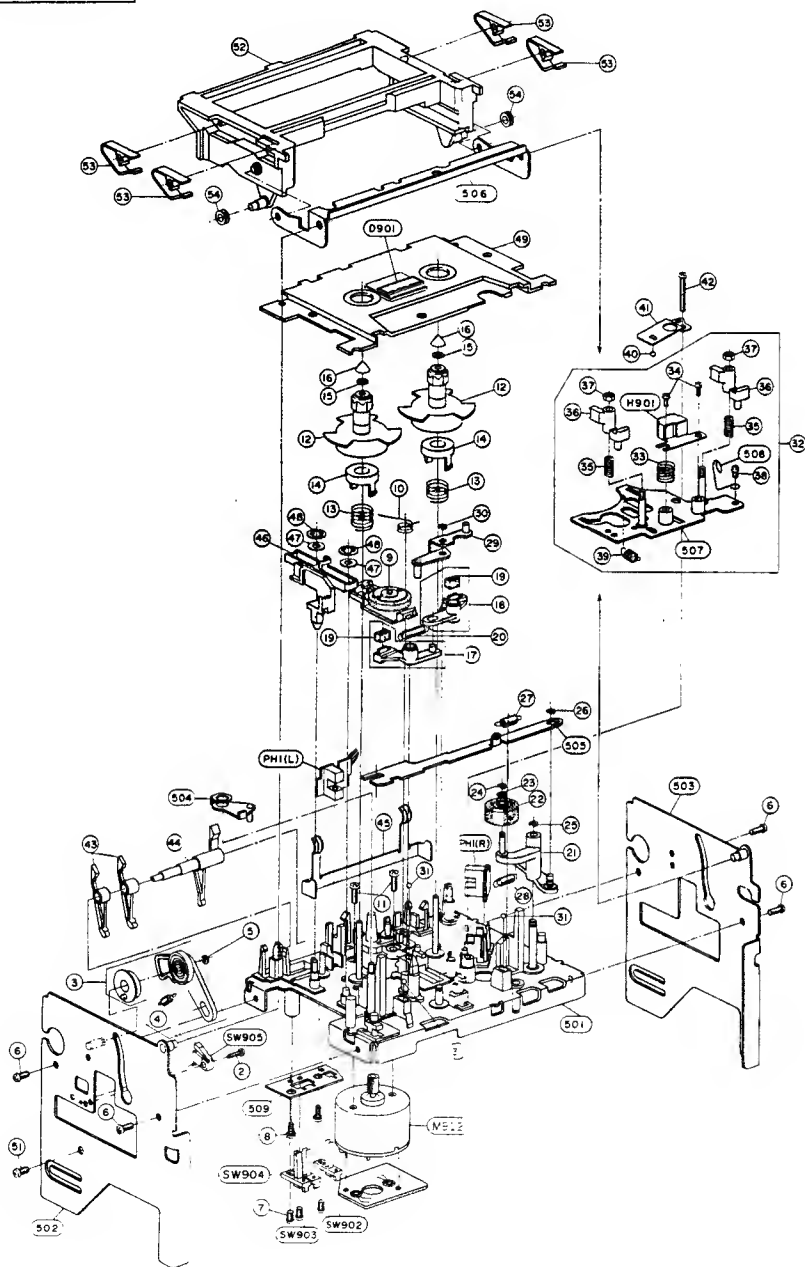
△ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

1. RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	BH-T2100A020A	MECHA BLK GX 52	56	ES-372912	SW LEAF SPB21 01 2
2	BH-T2100A030A	HEAD BLK GX 52			LOADING SW
3	BH-M3103A010A	MOTOR BLM-3CC	57	ES-373380	SW PUSH ESE-88630 4 THROW N
		CAPSTAN MOTOR			NR SW
4	EW-8345196	MOTOR OPERATOR PULLEY PART	58	*ES-371104	SW PUSH SDD010B2A 01
		CAM MOTOR			POWER SW
5	BR-T2069A360A	REEL TABLE BLK CX-3	59	*ES-359806	SW SELECTOR 8T-41S0454 01-4
6	*8T-373395	TRANS POWER T2100 A.C.			[U] [VOLTAGE SELECTOR
		[A.C.]	60	ES-370965	SW SLIDE SSSU02 1-01-03N
7	*8T-373398	TRANS POWER T2100B SI			[TIMER START SW]
		[8.5]	61	ES-373381	SW TACT SK-HPP
8	*8T-373396	TRANS POWER T2100E.VI	62	ET-345091	DETECTOR SPH-201-40 8 C
		[E.V.]			[DETECTOR R PCB]
9	*8T-373394	TRANS POWER T2100U	63	ET-373382	TR DTA143ZS
		[U]	64	ET-372030	TR DTA144EF
10	ED-307572	O SILICON H 1S131	65	ET-354415	TR DTA144ES
11	ED-624903	D SILICON H 152473	68	ET-353897	TR DTC114ES
12	*ED-330622	D SILICON 15R35-100V 100 1CA	67	ET-354365	TR DTC114YS
13	ED-316389	D ZENER HZ211 A2	68	ET-373485	TR DTC123S
14	ED-324014	D ZENER HZ211 B1	69	ET-373392	TR DTC124XS
15	ED-346550	D ZENER HZ211L B2	70	ET-373391	TR DTC143ZS
16	ED-338561	D ZENER HZ2FA B2 F10	71	ET-360824	TR DTC144EF
17	ED-324013	O ZENER HZ220 2	72	ET-354414	TR DTC144ES
18	ED-346624	O ZENER HZ330 2	73	ET-370310	TR DTC144TS
19	ED-306010	D ZENER HZ26 A2	74	ET-308472	TR 2SA1115 E.F.G F05
20	ED-309069	D ZENER HZ26 B2	75	*ET-354841	TR 2SA1282A F.G F05
21	ED-346804	O ZENER HZ27 B2	78	*ET-352728	TR 2SA1392 T.U
22	ED-346609	D ZENER HZ29 C1	77	ET-337780	TR 2SA984K F
23	ED-346538	O ZENER HZ29L A2	78	ET-308977	TR 2SC2274K F F05
24	ED-348540	D ZENER HZ29L B1	79	ET-308141	TR 2SC2603 G F05
25	*EF-355374	FUSE BET T 250V 500MA	80	*ET-385394	TR 2SC3242A E.F.G F05
		[B]	81	*ET-357845	TR 2SC3242A F.G F05
26	*EF-358974	FUSE BET T 250V 630MA	82	ET-349081	TR 2SC3383 S.T
		[B]	83	ET-347961	TR 2SD1012-V G F05
27	*EF-593706	FUSE SEMKO T 250V 500MA	84	*ET-354083	TR 2SD1189 Q.R
		[E]	85	EV-373389	VR ROTARY RK1631110 8102
28	*EF-60194Z	FUSE SEMKO T 250V 630MA			[BIAS ADJUST]
		[E]	86	EV-373387	VR ROTARY RK16312A0 A104X2
29	*EF-306949	FUSE TSC A 250V 1.25A			[REC LEVEL]
		[U]	87	EV-373388	VR ROTARY RK16312A0 A104X2
30	*EF-309388	FUSE TSC A 250V 800MA			[PHONES LEVEL]
		[U]	88	EV-373385	VR ROTARY RK1631210 M104 N104
31	*EF-309392	FUSE TSC 125V 1.25A			[REC BALANCE]
		[C]	89	HR-H2505A010A	HEAD COMB EPRA-13TG
32	*EF-309391	FUSE TSC 125V 800MA	90	MP-346329	PINCH ROLLER(C)
		[C]	91	TC-336605	WIND IDLER ASSY
33	EH-372101	FILTER DB 428-5162-04			
34	EH-337568	HOLE E DHO-H070			
35	EH-359985	IC CX20187			
36	EH-356327	IC HA12067NT			
37	EH-337013	IC L81290			
38	EH-345765	IC L81292			
39	EH-355602	IC L81649			
40	EH-373379	IC M50743-600SP T2100 CUSTOM			
41	EH-357498	IC M51143 AL			
42	EH-353227	IC M5216L			
43	EH-345071	IC M5218L 21			
44	EH-348785	IC M5220L			
45	EH-201940	IC NJM4558S			
46	EH-336992	IC UPC1043C			
47	EH-373383	IC UPC1297CA			
48	E-372031	OSC CE W/C FORB CMC 8.0MHZ			
49	EW-373136	IND RLP26A-A15Y			
50	ED-328529	RELAY LEAD LAR2NS 2N0 12V			
51	*ER-367642	R FUSE H 510 EROZFC 1 4W 120CG			
52	*ER-200926	R FUSE H 510 EROZFC 1 4W 270CG			
53	*ER-200972	R FUSE H 510 EROZFC 1 4W 330CG			
54	ER-358910	R OMF H S15 FS 2W 181J			
55	ES-336990	SW LEAF 8SW-169 21-1 NO			
		ICR02 METAL			

MECHA BLOCK



PARTS LIST

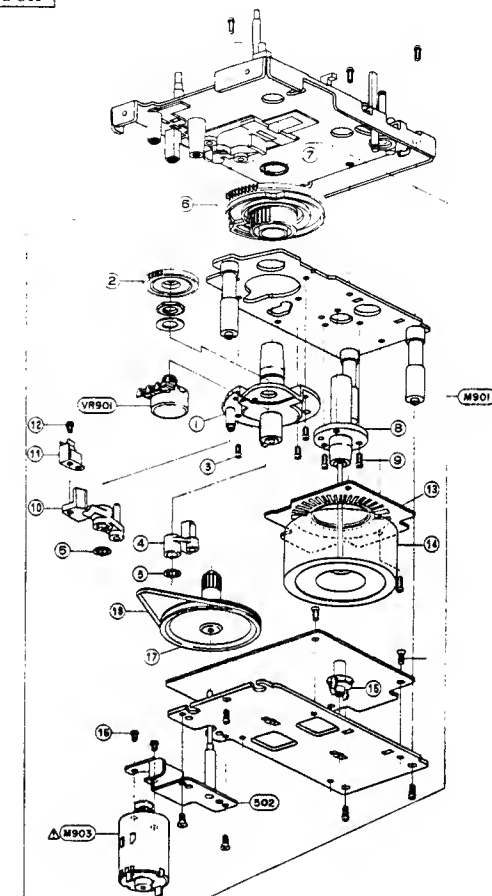
2. MECHA BLOCK

Ref. No.	Part No.	Description
1	BB-T2100A020A	MECHA BLK GX-52
2	ZS-608106	PAN20X06STL CMT
3	BZ-T2030A110C	OL CLUTCH BLK GX-8
4	ZG-341970	SP PULL OIL CLUTCH
5	ZW-270088	RNG E190SLP CMT
6	ZS-201275	ST PAN28X06STL CMT
SW905	ES-372912	SW LEAF SPPB21 01-2 [LOADING SW]
PH1(R)	ET-345091	DETECTOR SPI-201-40 B.C [DETECTOR-R PCB]
PH1(L)	ET-345091	DETECTOR SPI-201-40 B.C [DETECTOR-L PCB]
SW902	ES-338890	SW LEAF BSW-169 01-1 NO [CRO2/METAL]
SW903	ES-338990	SW LEAF BSW-169 D1-1 NO [120U/70U]
SW904	ES-338990	SW LEAF BSW-189 01-1 NO [ANTI REC]
7	ZS-464703	BID20X04STL CMT
8	ZS-336614	PT PAN26X08STL CMT
9	TC-338605	WIND IDLER ASSY
10	ZG-338140	SP TORSION IDLER
M902	BM-8336969	MOTOR REEL (PULLEY) PART [REEL MOTOR]
11	ZS-550708	PAN28X08STL M3
12	BR-T2068A360A	REEL TABLE BLK GX-9
13	ZG-336141	SP PUSH BT
14	TC-336142	HOLDER 8T SP
15	ZW-330073	PW21X040X020 TOUGH LIGHT NO440
16	MT-305793	REEL CAP
17	BL-T2030A160A	LEVER BRAKE (A) BLK GX-F51
18	BL-T2030A170A	LEVER BRAKE (B) BLK GX-F51
19	TC-338146	BRAKE RUBBER
20	ZG-312946	SP T1-03.2/0.29-18.0 T1-062
21	BL-8338150	ARM PINCH ROLLER (A) PART
22	WP-348329	PINCH ROLLER(C)
23	ZW-305546	PW21X040X025PSL
24	ZW-358857	RNG E150SLP CMT
25	ZW-270088	RNG E190SLP CMT
26	ZW-270088	RNG E190SLP CMT
27	ZG-342575	SP PULL PINCH ROLLER (T-2)
28	ZG-321534	SP T2-03.2/0.29-12.5 T2-060
29	BL-8338155	ARM HEAD SLIDE PART
30	ZW-270088	RNG E190SLP CMT
31	MV-357208	BALL 200STL
32	BB-T2100AD30A	HEAD BLK GX-52
33	ZG-373323	SP PUSH HEAD
H901	HR-H2505A01DA	HEAD COMB EPR4-13TG
34	ZS-201508	PAN20X04STL M3
35	ZG-3361308	SP PUSH GUIDE 8
36	HZ-336129	GUIDE TAPE
37	ZW-373137	N2DSTL BNI 1
38	ZS-391366	PAN23X03STL M3
39	ZG-341972	SP PULL HEAD RETURN
40	MV-357208	BALL 200STL
41	ZG-336157	SP PLATE HEAD HOLD
42	ZS-308931	PAN26X18STL CMT
43	ML-336158	LEVER DETECTION (B)
44	ML-336159-A	LEVER DETECTION (A)
45	ZG-336160	SP PLATE CASSETTE HOLDER (A)
46	TC-336161	SLIDE EJECT
47	ZW-306464	PW31X070X050STL CMT
48	ZW-329422	RNG CS D300
49	SP-336162B-A	LID DECORATION (B)
D901	ED-344244	D LED SLF-6D1C AMBER [HOUSING LAMP PCB]
50	ZS-479474	PAN26X05STL CMT
51	ZS-201275	ST PAN26X06STL CMT
52	SP-336163B	LID CASE(2)
53	ZG-336615	SP PLATE CASSETTE HOLDER (B)
54	SZ-336166	COLLAR LD

NOTE: The parts reference numbered here except the ones in 500's are normally stocked for replacement purpose. The rest of the parts shown in this manual are not stocked since they are seldom required for routine service.

PARTS LIST

MOTOR BLM310B BLOCK



3. MOTOR BLM-300 BLOCK

Ref. No.	Part No.	Description
M901	BM-M3103A010A	MOTOR BLM-300
1	TC-3380048	[CAPSTAN MOTOR]
VR901	EV-337052	HOLLOER CAPSTAN (C-2)
2	MZ-336005	VR ROTARY 1BL10XOR B103
3	ZS-432843	GEAR POTENTION
4	BL-8338007	PAN26X04STL CMT
5	ZW-853163	LEVER BRAKE CAM PART
6	MZ-336006	RING CS 280STL PKR
7	ZW-338604	CAM WHEEL
8	TC-336002	RETAINING RING O S930SUP ACP
9	ZS-479474	HOLDER CAPSTAN (B)
10	BL-8338009	PAN28X05STL CMT
11	MZ-353158	LEVER EJECT CAM PART
12	ZS-477876	SP PLATE EJECT
13	EA-336012	PAN20X03STL CMT
		PC FG

Ref. No.	Part No.	Description
14	BF-8336013	FLYWHEEL PART
15	TC-336016	HOLDER THRUST (A)
M903	BM-B345198	MOTOR OPERATION (PULLEY) PART
		[CAM MOTOR]
18	ZS-592378	PAN28X03STL CMT
17	MR-336019	PULLEY OPERATE
18	MB-336021	BELT OPERATION

NOTE: The parts reference numbered here except the ones in 500's are normally stocked for replacement purpose. The rest of the parts shown in this manual are not stocked since they are seldom required for routine service.

4. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1A	BA-T2100A040A	PC(≡) PRE AMP BLK GX-52(U)
18	BA-T2100A040B	PC(≡) PRE AMP BLK GX-52(C.E.B)
2	BA-T2100A050A	PC(≡) SYSCON BLK GX-52

PC PRE-AMP BLK CONSISTS OF FOLLOWING P.C.BOARD.

- PRE-AMP P.C.BOARD
- HEADPHONE AMP P.C.BOARD
- POWER TRANS P.C.BOARD
- HEADPHONE P.C.BOARD

PC SYSCON BLK CONSISTS OF FOLLOWING P.C.BOARD.

- SYSTEM CONTROL(1)P.C.BOARD
- SYSTEM CONTROL(2)P.C.BOARD
- TIMER SW P.C.BOARD
- REMOCOON JACK P.C.BOARD

5. PRE-AMP P.C BOARD

Ref. No.	Part No.	Description
D101	ED-624903	D SILICON H 1S2473
D501	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D502	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D503	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D504	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D605	ED-624903	D SILICON H 1S2473
D608	ED-373380	D LED LTZ-R15 RED F10
D607	ED-348640	D ZENER H HZ29L 91
D608	ED-624903	D SILICON H 1S2473
D609	ED-373390	D LED LTZ-R16 RED F10
D610	ED-348540	D ZENER H HZ28L 81
D611	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D612	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D613	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D614	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D615	ED-624903	D SILICON H 1S2473
D616	ED-346550	D ZENER H HZ11L 82
D617	ED-624903	D SILICON H 1S2473
D618	ED-346550	D ZENER H HZ11L 82
D619	ED-346538	D ZENER H HZ29L A2
D620	ED-346538	D ZENER H HZ29L A2
D621	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D622	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D623	ED-324014	D ZENER H HZ211 81
D641	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D642	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D643	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D644	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D652	ED-324014	D ZENER H HZ111 81
D653	ED-324014	D ZENER H HZ111 81
D654	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D655	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D656	*ED-330622	D SILICON 1SR35-100VL 100/1.0A
D657	ED-306010	D ZENER H HZ6 A2
D658	ED-309069	D ZENER H HZ6 A2
D659	ED-624903	D SILICON H 1S2473
D660	ED-346624	D ZENER H HZ30 2
D661	ED-324013	D ZENER H HZ20 2
D662	*ED-330622	D SILICON 1SR35-100VL 100 1.0A
D663	*ED-330622	D SILICON 1SR35-100VL 100 1.0A
D664	*ED-330622	D SILICON 1SR35-100VL 100 1.0A
D665	*ED-330622	D SILICON 1SR35-100VL 100 1.0A
D666	*ED-330622	D SILICON 1SR35-100VL 100 1.0A
D601	ED-624903	D SILICON H 1S2473
D602	ED-624903	D SILICON H 1S2473
FL101	EH-368105	FILTER EM STY103NB
FL201	EH-372101	FILTER DB 428-5162-04
FL202	ED-323982	COIL TUN 1 1002-431 1000KHZ
FL203	EH-368105	FILTER EM STY103NB
FL204	EH-368105	FILTER EM STY103NB
FL205	EH-368105	FILTER EM STY103NB
FR401	*ER-200972	R FUSE H S10 ERD2FC 1 4W 330G

Ref. No.	Part No.	Description
FR501	*ER-200926	R FUSE H S10 ERD2FC 1 4W 270G
FR502	*ER-367642	R FUSE H S10 ERD2FC 1 4W 1200G
IC101	EH-348785	IC M5220L
IC201	EH-359985	IC CX20187
IC301	EH-346071	IC M5218L-21
IC401	EH-373383	IC UPC1287CA
IC601	EH-357498	IC M51143AL
J601	EJ-336905	PN J AJC-035-AC8 P 4P
L201	ED-372996	COIL FIX 1 RC875 223J
L301	ED-357050	COIL FIX 1 RC875 822J
L302	ED-369999	RELAY 1 79-5249-13 542J
RL101	ED-328529	RELAY LEAD LAB2NS 2NO 12V
TR101	ET-349081	TR 2SC3383 S.T
TR102	ET-349081	TR 2SC3383 S.T
TR103	ET-349081	TR 2SC3383 S.T
TR104	ET-373485	TR DTC123JS
TR105	ET-354365	TR DTC114YS
TR106	ET-354365	TR DTC114YS
TR201	ET-349081	TR 2SC3383 S.T
TR202	ET-349081	TR 2SC3383 S.T
TR203	ET-349081	TR 2SC3383 S.T
TR301	ET-349081	TR 2SC3383 S.T
TR302	ET-349081	TR 2SC3383 S.T
TR303	ET-349081	TR 2SC3383 S.T
TR304	ET-349081	TR 2SC3383 S.T
TR305	ET-349061	TR 2SC3383 S.T
TR308	ET-349081	TR 2SC3383 S.T
TR307	ET-349081	TR 2SC3383 S.T
TR401	*ET-357845	TR 2SC3242A F.G F05
TR402	ET-373381	TR DTC143ZS
TR403	ET-370310	TR DTC144TS
TR404	ET-370310	TR DTC144TS
TR405	ET-308977	TR 2SC2274K F F05
TR406	ET-308977	TR 2SC2274K F F05
TR407	ET-308472	TR 2SA1115 E.F.G F05
TR408	ET-373392	TR DTC124XS
TR409	ET-370310	TR DTC144TS
TR410	ET-370310	TR DTC144TS
TR411	ET-354416	TR DTA144ES
TR513	ET-308141	TR 2SC2603 G F05
TR501	*ET-349081	TR 2SC3383 S.T
TR502	ET-352726	TR 2SA1392 T.U
TR503	*ET-352726	TR 2SA1392 T.U
TR504	ET-349081	TR 2SC3383 S.T
TR505	*ET-349081	TR 2SC3383 S.T
TR506	*ET-349081	TR 2SC3383 S.T
TR507	*ET-349081	TR 2SC3383 S.T
TR508	*ET-352728	TR 2SA1392 T.U
TR509	*ET-352728	TR 2SA1392 T.U
TR510	*ET-352728	TR 2SA1392 T.U
TR511	*ET-357845	TR 2SC3242A F.G F05
TR551	*ET-357845	TR 2SC3242A F.G F05
TR552	*ET-354841	TR 2SA1282A F.G F05
TR553	*ET-354083	TR 2SD1189 D.R
TR554	*ET-308141	TR 2SC2603 G F05
TR555	*ET-308472	TR 2SA1115 E.F.G F05
TR556	*ET-308141	TR 2SC2603 G F05
TR557	*ET-365394	TR 2SC3242A E.F.G F05
TR601	ET-354415	TR DTA144ES
TR602	ET-354415	TR DTA144ES
TR603	ET-354415	TR DTA144ES
T401	ED-373384	CDL OSC 1 23D6-01 1000KHZ
T402	ED-373483	COIL OSC 1 23D6-02 100DKHZ
VR101	EV-356582	R S-FIX H RH0615C 0 10W 103
VR102	EV-356577	R S-FIX H RH0615C 0 10W 103
VR201	EV-357619	R S-FIX H RH0615C 0 10W 104
VR301	EV-357619	R S-FIX H RH0615C 0 10W 104
VR401	EV-345781	P S-FIX H RVFBP01 0.10W 202
VR402	EV-377996	R S-FIX H RVFBP01 0.10W 104
VR403	EV-377996	R S-FIX H RVFBP01 0.10W 104
F1A	*EF-309388	FUSE TSC A 250V 800MA
F2A	*EF-309388	FUSE TSC A 250V 800MA
F3A	*EF-306949	FUSE TSC A 250V 125A

Ref. No.	Part No.	Description
F4A	*EF-306949	FUSE TSC A 250V 125A
F1B	*EF-309391	FUSE TSC 125V 800MA
F2B	*EF-309391	FUSE TSC 125V 800MA
F3B	*EF-309392	FUSE TSC 125V 1.25A
F4B	*EF-309392	FUSE TSC 125V 1.25A
F1C	*EF-593706	FUSE SEMKO T 250V 500MA
F2C	*EF-593706	FUSE SEMKO T 250V 500MA
F3C	*EF-601942	FUSE SEMKO T 250V 830MA
F4C	*EF-601942	FUSE SEMKO T 260V 630MA
F1D	*EF-355374	FUSE BET T 250V 500MA
F2D	*EF-355374	FUSE BET T 250V 500MA
F3D	*EF-358974	FUSE BET T 250V 630MA
F4D	*EF-358974	FUSE BET T 250V 630MA

6. HEADPHONE AMP P.C BOARD

Ref. No.	Part No.	Description
IC701	EH-353227	IC M5218L
IC706	ER-358810	R OMV H S15 FS 2W 181J
IC706	ER-358910	R OMV H S15 FS 2W 181J
VR701	EV-373387	VR RDTARY RK18312A0 A104X2
VR702	EV-373385	VR RDTARY RK1831210 M104 N104
VR703	EV-373388	VR RDTARY RK16312A0 A104X2
VR704	EV-373389	VR RDTARY RK1631110 8102

7. POWER TRANS P.C BOARD

Ref. No.	Part No.	Description
CB01A	*EC-320548	C CE V F 1032 250AC
CB01B	*EC-338411	C CE V F 103P 400AC
FL801	EO-368465	COIL LF LF4N
SW801	*ES-371104	SW PUSH SDDLD1082A 01-1

8. HEADPHONE P.C BOARD

Ref. No.	Part No.	Description
J701	EJ-369995	PHONE J 3P HLJ0540-410 GP 63

9. SYSTEM CONTROL (1) P.C BOARD

Ref. No.	Part No.	Description
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
D6	ED-346593	D 2EMER H HZ3 B1
D7	ED-338332	D 2EMER H HZ4 A2
D8	ED-318389	D 2EMER H HZ11 A2
D9	ED-346609	D 2EMER H HZ9 C1
D10	ED-307572	D SILICON H 1SS131
D11	ED-346604	D ZENER H HZ7 B2
D12	ED-307572	D SILICON H 1SS131
D13	ED-307572	D SILICON H 1SS131
D14	ED-307572	D SILICON H 1SS131
D15	ED-307572	D SILICON H 1SS131
D16	ED-307572	D SILICON H 1SS131
D17	ED-307572	D SILICON H 1SS131
D18	ED-307572	D SILICON H 1SS131
IC1	EH-373378	IC M50743-600SP T2100 CUSTOM
IC2	EH-338992	IC UPC1043C
IC3	EH-348D71	IC M5218L-21
IC4	EH-348071	IC M5218L-21
IC5	EH-355602	IC LB1649
TR1	ET-354414	TR DTC144ES
TR2	ET-354414	TR DTC144ES
TR3	ET-353897	TR DTC144ES
TR4	ET-353897	TR DTC144ES
TR5	ET-353897	TR DTC144ES
TR6	ET-353897	TR DTC144ES
TR7	ET-353897	TR DTC144ES
TR8	ET-353897	TR DTC144ES
TR8	ET-353897	TR DTC144ES
TR10	ET-353897	TR DTC144ES
TR11	ET-353897	TR DTC144ES
TR12	ET-353897	TR DTC144ES
TR13	ET-353897	TR DTC144ES
TR14	ET-308141	TR 2SC2603 G F05
TR15	ET-347981	TR 2SD1012-V G F05
TR16	ET-347981	TR 2SD1012-V G F05
TR17	ET-347981	TR 2SD1012-V G F05
TR18	ET-347981	TR 2SD1012-V G F05
TR19	ET-347981	TR 2SD1012-V G F05
TR20	ET-354415	TR DTA144ES
TR21	ET-308141	TR 2SC2603 G F05
TR22	ET-353897	TR DTC144ES
TR23	ET-353897	TR DTC144ES
TR24	ET-353897	TR DTC144ES
TR25	ET-308141	TR 2SC2603 G F05
TR26	ET-308141	TR 2SC2603 G F05
TR27	ET-354414	TR DTC144ES
TR28	ET-354414	TR DTC144ES
TR29	ET-353897	TR DTC144ES
TR30	ET-308472	TR 2SA1115 E.F.G F05
TR31	ET-373382	TR DTA143ZS
TR32	ET-353897	TR DTC144ES
TR33	ET-353897	TR DTC144ES
TR34	ET-353897	TR DTC144ES
TR35	ET-353897	TR DTC144ES
TR36	ET-353897	TR DTC144ES
TR37	ET-353897	TR DTC144ES
VR1	EV-330531	R S-FIX H TMSKV2-1S 0.50W 503
X1	EH-372031	OSC CE W/C FCR8 QMC 80MHZ

10. SYSTEM CONTROL (2) P.C BOARD

Ref. No.	Part No.	Description
D201	ED-624903	O SILICON H 1S2473
D202	ED-624903	D SILICON H 1S2473
D203	ED-307572	D SILICON H 1SS131
D204	ED-624903	D SILICON H 1S2473
D205	ED-624903	D SILICON H 1S2473
IC201	EI-345765	IC LB1292
IC202	EI-345765	IC LB1292
IC203	EI-337013	IC LB1290
IC204	EI-356327	IC HA12067NT
IN201	EM-373138	IND FL RP26AW15Y
SW201	ES-373380	SW PUSH ES8-68630 4 THROW N [NR SW]
TR201	ET-360824	TR DTC144EF
TR202	ET-360824	TR DTC144EF
TR203	ET-372030	TR DTA144EF
TR204	ET-372030	TR DTA144EF
TR205	ET-360824	TR DTC144EF
TR206	ET-360824	TR DTC144EF
TS201	ES-373381	SW TACT SKHHP
TS202	ES-373381	SW TACT SKHHP
TS203	ES-373381	SW TACT SKHHP
TS204	ES-373381	SW TACT SKHHP
TS205	ES-373381	SW TACT SKHHP
TS206	ES-373381	SW TACT SKHHP
TS207	ES-373381	SW TACT SKHHP
TS208	ES-373381	SW TACT SKHHP
TS209	ES-373381	SW TACT SKHHP
TS210	ES-373381	SW TACT SKHHP

11. TIMER SW P.C BOARD

Ref. No.	Part No.	Description
SW301	ES-370965	SW SLIDE SSSU02 1-D1-03N [TIMER START SW]

12. REMOCON JACK P.C BOARD

Ref. No.	Part No.	Description
J401	EJ-346076	DIN J TCS4890-01-1111 P BP [REMOTE]

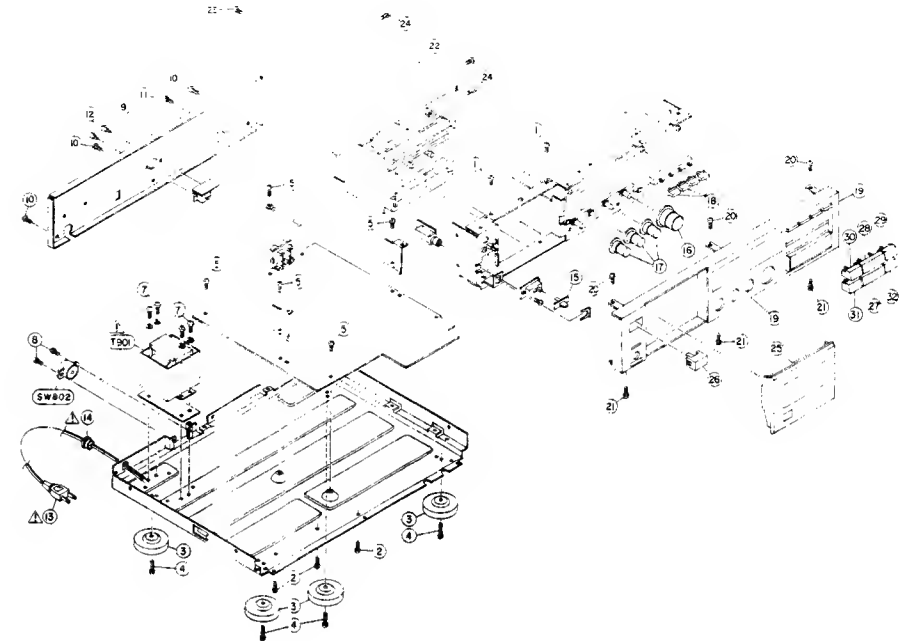
13. MOTOR P.C BOARD

Ref. No.	Part No.	Description
D5	ED-338581	D ZENER H H22FA 82 F10
IC1	EI-201940	IC NJM4558S
IC2	EI-201940	IC NJM4558S
IC3	EI-337568	HDL-E DHD-H070
IC4	EI-337568	HDL-E DHD-H070
TR1	ET-308977	TR 25C2274K F F05
TR2	ET-337760	TR 25A984K F
TR3	ET-308977	TR 25C2274K F F05
TR4	ET-337760	TR 25A984K F
VR1	EV-464253	R S-FIX V V8K1-1 0 10W 202
VR2	EV-464253	R S-FIX V V8K1-1 0 10W 202

14. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
1	ZS-381242	ST BR26X06STL CMT
2	ZS-345272	ST BR30X06STL BN
3	SA-8369350A1	FDDT PART
4	ZS-351098	ST BR30X12STL BN
5	ZS-342001	ST BR30X06STL N3
6	MZ-553948	WIRE BAND F 100
T901A	*BT-373394	TRANS POWER T2100(U)
		[U]
T901B	*BT-373395	TRANS POWER T2100(A.C)
		[A.C]
T901C	*BT-373396	TRANS POWER T2100(E.V)
		[E.V]
T901D	*BT-373398	TRANS POWER T2100(B.S)
		[B.S]
7	ZS-322580	ST BD40X08STL BN
SW802	*ES-359608	SW SELECTOR BT-41S0454 01-4 [U] [VOLTAGE SELECTOR]
8	ZS-352133	ST BR30X10STL CMT
9A	SP-373338A	PANEL REAR GX-52(U)
		[U]
9B	SP-373338C	PANEL REAR GX-52(C)
		[C]
9C	SP-373338D	PANEL REAR GX-52(E)
		[E]
9D	SP-373338E	PANEL REAR GX-52(B)
		[B]
10	ZS-345272	ST BR30X06STL BN
11	ZS-350934	PT BR30X08STL BN
12	ZW-231030	RV NYL30X045 BL
13A	*EW-383854	AC CORD 200 0129AVFF 8300 A U/ [U]
13B	*EW-383817	AC CORD 200 0238 SPT1 8300 A UC [C]
13C	*EW-383687	AC CORD 200 0364 LCFL 8300 A E [E]
13D	*EW-383879	AC CORD 200 LCFL 8300 A B [B]
14	*E2-330775	CLAMPER CORD 130
15-G	SK-358088E	XNOB SLIDE(A)-GOLD [TIMER START-GOLD]
15-B	SK-358088B	XNOB SLIDE-BLACK [TIMER START-BLACK]
16-G	SK-373334B	XNOB VRI(A)-GOLD [REC LEVEL-GOLD]
16-B	SK-373334A	XNOB VRI(A)-BLACK [REC LEVEL-BLACK]
17-G	SK-373335B	XNOB VRI(B)-GOLD [GOLD]
17-B	SK-373335A	XNOB VRI(B)-BLACK [BLACK]
18-G	SK-373340B	XNOB PUSH-GOLD [GOLD]
18-B	SK-373340A	XNOB PUSH-BLACK [BLACK]
19-G	BD-T2100A060A	PANEL FRONT BLK GX-52 G [GOLD]

FINAL ASSEMBLY BLOCK



Ref. No.	Part No.	Description
19-B	BD-T2100A080B	PANEL FRONT BLK GX-52-B [BLACK]
20	ZS-320906	ST BR30X06STL CMT
21	ZS-305827	ST BD30X06STL BN
22-G	SP-373343B	COVER UPPER-GOLD [GOLD]
22-B	SP-373343A	COVER UPPER-BLACK [BLACK]
23-G	ZS-342001	ST BR30X06STL N3 [GOLD]
23-B	ZS-345272	ST BR30X06STL BN [BLACK]
24-G	ZS-341959	ST BD40X06STL N3 [GOLD]
24-B	ZS-341960	ST BD40X06STL BN [BLACK]
25-G	BD-T2100A070A	[D] PANEL BLK GX-52 G [GOLD]
25-B	BD-T2100A070B	[D] PANEL BLK GX-52 B [BLACK]
26-G	SK-373236A	XNOB POWER-GOLD [GOLD]
26-B	SK-373236B	XNOB POWER-BLACK [BLACK]
27-G	SK-373336B	XNOB OPERATION(A) STOP-GOLD [GOLD]
27-B	SK-373336A	XNOB OPERATION(A) STOP-BLACK [BLACK]

NOTE: SYMBOL FOR COLOR VALIATION
B: BLACK
G: GOLD

INDEX

Part No	Ref No	Part No	Ref No	Part No	Ref No	Part No	Ref No
8A-T2100A040A	1A	ED-330622	D555	ET-337568	IC3	ET-308141	TR21
8A-T2100A040B	18	ED-330622	D556	ET-337568	IC4	ET-308141	TR25
8A-T2100A050A	2	ED-330622	D562	ET-345765	38	ET-308141	TR26
8B-T2100A020A	1	ED-330622	D583	ET-345765	IC201	ET-308472	74
8B-T2100A020A	1	ED-330622	D564	ET-345765	IC202	ET-308472	TR407
8D-T2100A060A	19-G	ED-330622	D565	ET-346071	43	ET-308472	TR555
8D-T2100A060B	19-B	ED-330622	D566	ET-346071	IC301	ET-308472	TR30
8D-T2100A070A	25-G	ED-336332	D7	ET-346071	IC3	ET-308977	78
8D-T2100A070B	25-B	ED-338561	16	ET-346071	IC4	ET-308977	TR405
8F-8338013	14	ED-338561	D5	ET-348785	44	ET-308977	TR406
8H-T2100A030A	2	ED-344244	D901	ET-348785	IC101	ET-308977	TR1
8H-T2100A030A	32	ED-346538	23	ET-353227	42	ET-308977	TR3
8L-8336007	4	ED-346538	D519	ET-353227	IC701	ET-337780	77
8L-8336009	10	ED-346538	D520	ET-355802	38	ET-337780	TR2
8L-8338150	21	ED-346540	24	ET-355802	IC5	ET-337780	TR4
8L-8338155	29	ED-346540	D507	ET-356327	36	ET-345091	82
8L-T2030A180A	17	ED-346540	D510	ET-356327	IC204	ET-345091	PH1(R)
8L-T2030A170A	18	ED-346550	15	ET-357498	41	ET-345091	PH1(L)
8M-8338989	M902	ED-348550	D516	ET-357498	IC601	ET-347981	83
8M-8345196	4	ED-346550	D518	ET-359985	35	ET-347981	TR15
8M-8345196	M903	ED-346593	D6	ET-359985	IC201	ET-347981	TR18
8M-M3103A010A	3	ED-346604	21	ET-372031	48	ET-347981	TR17
8M-M3103A010A	M901	ED-346604	D11	ET-372031	X1	ET-347981	TR18
8R-T2089A360A	6	ED-346609	22	ET-373379	40	ET-347981	TR19
8R-T2089A360A	12	ED-346609	D9	ET-373379	IC1	ET-349081	82
8T-373394	8	ED-346624	18	ET-373383	47	ET-349081	TR101
8T-373384	T901A	ED-346624	D580	ET-373383	IC401	ET-349081	TR102
8T-373396	6	ED-373390	D606	ET-373390	J601	ET-349081	TR103
8T-373395	T901B	ED-373390	D509	ET-373390	J401	ET-349081	TR201
8T-373386	8	ED-624903	11	ET-373382	J701	ET-349081	TR202
8T-373388	T901C	ED-824903	D101	ET-373391	70	ET-373391	TR203
8T-373398	7	ED-824903	D505	ET-373391	TR402	ET-373391	TR402
8T-373398	T801D	ED-824903	D508	ET-373392	68	ET-373392	TR302
8Z-T2030A110C	3	ED-624903	D616	ET-373392	TR408	ET-373392	TR408
EA-336012	13	ED-624903	D617	ET-373485	88	ET-373485	TR304
EC-320548	C801A	ED-624903	D559	ET-373485	TR104	ET-373485	TR305
EC-338411	C801B	ED-624903	D601	EV-330531	VR1	EV-330531	VR1
ED-306010	19	ED-624903	D602	EV-337052	VR901	EV-337052	VR901
ED-306010	D857	ED-624903	D201	EV-337996	VR402	EV-337996	VR402
ED-307572	10	ED-624903	D202	EV-337996	VR403	EV-337996	VR403
ED-307572	D1	ED-624903	D204	EV-345781	VR401	EV-345781	VR401
ED-307572	D2	ED-624903	D205	EV-356577	VR102	EV-356577	VR102
ED-307572	D3	EF-306949	29	EV-356582	VR101	EV-356582	VR101
ED-307572	D4	EF-306949	F3A	EV-357619	VR201	EV-357619	VR201
ED-307572	D5	EF-306949	F4A	EV-357618	VR301	EV-357618	VR301
ED-307572	D10	EF-309388	30	EV-373385	88	EV-373385	88
ED-307572	D12	EF-309388	F1A	EV-373385	VR702	EV-373385	VR702
ED-307572	D13	EF-309388	F2A	EV-373387	86	EV-373387	86
ED-307572	D14	EF-309391	32	EV-373387	VR701	EV-373387	VR701
ED-307572	D15	EF-309391	F1B	EV-373388	87	EV-373388	87
ED-307572	D16	EF-309391	F2B	EV-373388	VR703	EV-373388	VR703
ED-307572	D17	EF-309392	31	EV-373389	85	EV-373389	85
ED-307572	D18	EF-309392	F3B	EV-373389	VR704	EV-373389	VR704
ED-307572	D203	EF-309392	F4B	EV-464253	VR1	EV-464253	VR1
ED-309089	20	EF-355374	25	EV-464253	VR2	EV-464253	VR2
ED-309089	D558	EF-355374	F1D	EW-363617	138	EW-363617	138
ED-316388	13	EF-355374	F2D	EW-363654	13A	EW-363654	13A
ED-316388	D8	EF-358974	26	EW-363667	13C	EW-363667	13C
ED-324013	17	EF-358974	F3D	EW-363679	13D	EW-363679	13D
ED-324013	D561	EF-358974	F4D	EZ-330775	14	EZ-330775	14
ED-324014	14	EF-593706	27	HR-H2505A010A	89	HR-H2505A010A	89
ED-324014	D523	EF-593706	F1C	HR-H2505A010A	H901	HR-H2505A010A	H901
ED-324014	D562	EF-593706	F2C	MB-336021	16	MB-336021	16
ED-324014	D553	EF-601942	28	ML-336158	43	ML-336158	43
ED-330622	12	EF-601942	F3C	ML-336159-A	44	ML-336159-A	44
ED-330622	D501	EF-601942	F4C	MP-346329	90	MP-346329	90
ED-330622	D502	EH-368105	FL101	MP-346329	22	MP-346329	22
ED-330622	D503	EH-368105	FL203	MR-336019	17	MR-336019	17
ED-330622	D504	EH-368105	FL204	MT-305793	16	MT-305793	16
ED-330622	D511	EH-368105	FL205	MV-357208	31	MV-357208	31
ED-330622	D512	EH-372101	33	MV-357208	40	MV-357208	40
ED-330622	D513	EH-372101	FL201	MZ-336006	2	MZ-336006	2
ED-330622	D514	ET-201840	45	MZ-336006	6	MZ-336006	6
ED-330622	D521	ET-201840	IC1	MZ-353158	11	MZ-353158	11
ED-330622	D522	ET-201840	IC2	MZ-553948	6	MZ-553948	6
ED-330622	D541	ET-336992	46	SA-8369350A	3	SA-8369350A	3
ED-330622	D542	ET-336992	IC2	SK-3580668	15-B	SK-3580668	15-B
ED-330622	D543	ET-337013	37	SK-358066E	15-G	SK-358066E	15-G
ED-330622	D544	ET-337013	IC203	SK-373236A	26-G	SK-373236A	26-G
ED-330622	D554	ET-337568	34				

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Part No	Ref No	Part No	Ref No	Part No	Ref No	Part No	Ref No
ET-354414	TR28	SK-3732368	26-B	ZW-270088	30		
ET-354415	85	SK-373334A	16-B	ZW-305546	23		
ET-354415	TR411	SK-373334B	16-G	ZW-308464	47		
ET-354415	TR601	SK-373335A	17-B	ZW-329422	46		
ET-354415	TR602	SK-373335B	17-G	ZW-330073	15		
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ET-354841	75	SK-373336C	28-B	ZW-373137	37		
ET-354841	TR552	SK-373336D	28-G	ZW-653163	5		
ET-357845	81	SK-373337A	29-B				
ET-357845	TR401	SK-373337B	29-G				
ET-357845	TR511	SK-373337C	30-B				
ET-357845	TR551	SK-373337D	30-G				
ET-360824	71	SK-373337E	31-B				
ET-360824	TR2D1	SK-373337F	31-G				
ET-360824	TR2D2	SK-373337G	32-B				
ET-360824	TR2D5	SK-373337H	32-G				
ET-360824	TR2D6	SK-373340A	18-B				
ET-385394	B0	SK-373340B	18-G				
ET-365394	TR557	SP-3381828-A	49				
ET-370310	73	SP-3361638	52				
ET-370310	TR403	SP-373338A	9A				
ET-370310	TR404	SP-373338C	9B				
ET-370310	TR409	SP-373338D	9C				
ET-370310	TR410	SP-373338E	9D				
ET-372030	64	SP-373343A	22-B				
ET-372030	TR203	SP-373343B	22-G				
ET-372030	TR2D4	SZ-336166	64				
ET-373382	63	TC-336002	8				
ET-373382	TR31	TC-3360048	1				
ET-373391	70	TC-336016	15				
ET-373391	TR402	TC-336142	14				
ET-373392	68	TC-336146	19				
ET-373392	TR408	TC-336181	46				
ET-373485	88	TC-338805	91				
ET-373485	TR104	TC-338805	8				
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EV-337052	VR901	ZG-321534	28				
EV-337996	VR402	ZG-3361308	35				
EV-337996	VR403	ZG-336140	10				
EV-345781	VR401	ZG-336141	13				
EV-356577	VR102	ZG-336157	41				
EV-356582	VR101	ZG-336160	45				
EV-357619	VR201	ZG-336815	53				
EV-357618	VR301	ZG-341870	4				
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EV-373387	86	ZG-373323	33				
EV-373387	VR701	ZS-201275	6				
EV-373388	87	ZS-201275	51				
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EV-373389	VR704	ZS-308931	42				
EV-464253	VR1	ZS-321906	20				
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EW-363654	13A	ZS-341959	24-G				
EW-363667	13C	ZS-341960	24-B				
EW-363679	13D	ZS-342001	5				
EZ-330775	14	ZS-342001	23-G				
HR-H2505A010A	89	ZS-345272	2				
HR-H2505A010A	H901	ZS-345272	10				
HZ-336129	36	ZS-345272	23-B				
MB-336021	18	ZS-350934	11				
ML-336158	43	ZS-351098	4				
ML-336159-A	44	ZS-352133	8				
MP-346329	90	ZS-361242	1				
MP-346329	22	ZS-381386	38				
MR-336019	17	ZS-432843	3				
MT-305793	16	ZS-464703	7				
MV-357208	31	ZS-477876	12				
MV-357208	40	ZS-479474	50				
MZ-336005	2	ZS-479474	9				
MZ-336006	6	ZS-550708	11				
MZ-353158	11	ZS-592378	16				
MZ-553948	6	ZS-608106	2				
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NOTE

ABBREVIATIONS FOR SERVICE MANUAL (CASSETTE)

Abbreviation	Explanation	Abbreviation	Explanation
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi PleX
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Tuning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPsTan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Process- ing	REC	RECORD (RECORDing)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETECTOR	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF(or F.FWD)	Fast Forward	SIG	SIGnal
FLD	FLuorescent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitting Diode	X'TAL	cysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MicroCOMputer	X2	Dubble speed

AKAI

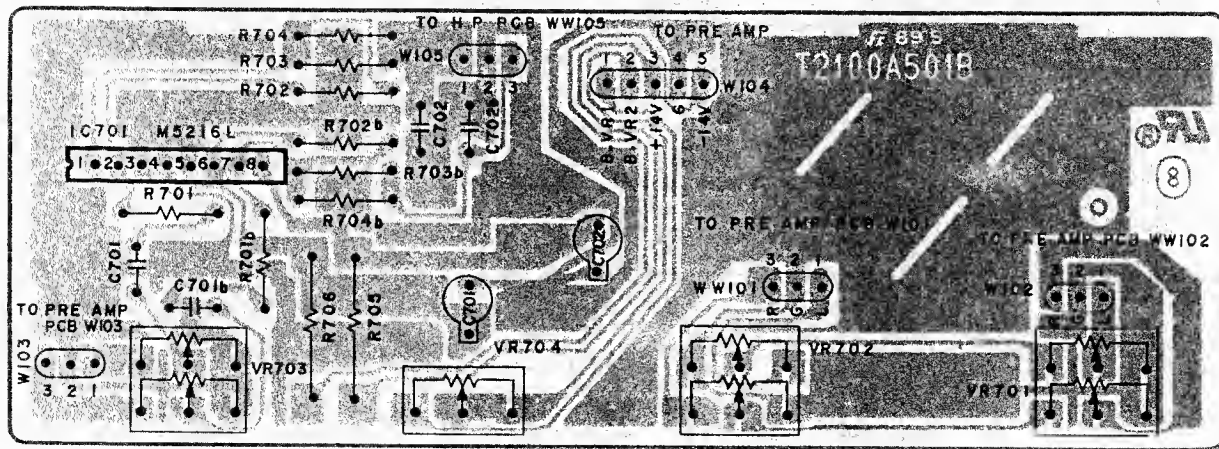
MODEL GX-52

SCHEMATIC DIAGRAM AND PC BOARDS

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HEAD PHONE AMP PCB T2100A501B

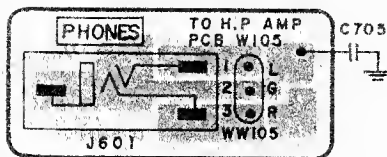


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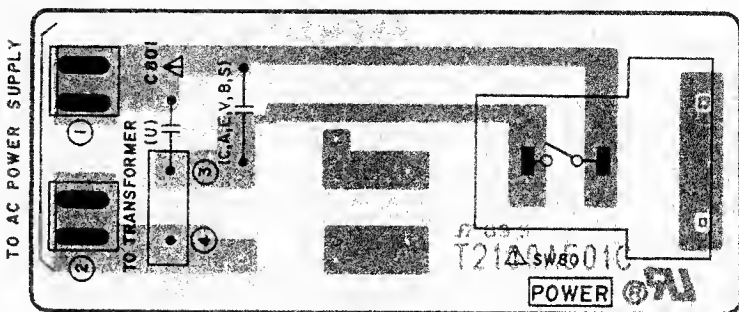
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REC
BALANCE

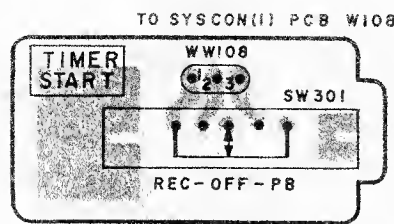
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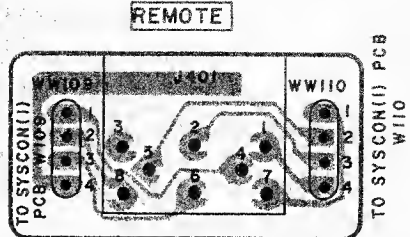
HEAD PHONE PCB
T2100A501D



POWER TRANS PCB T2100A501C



TIMER SW PCB
T2100A502C



REMOCON JACK PCB
T2100A502D

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

GX-52

POTENTION PCB
M3103C726B

MOTOR PCB
M3103C726A

FG PCB
M3103C7130

SYSTEM CONTROL (2) PCB
T2100A502B

HEAD PHONE PCB
T2100A501D

HEAD PHONE PCB T2100A501D

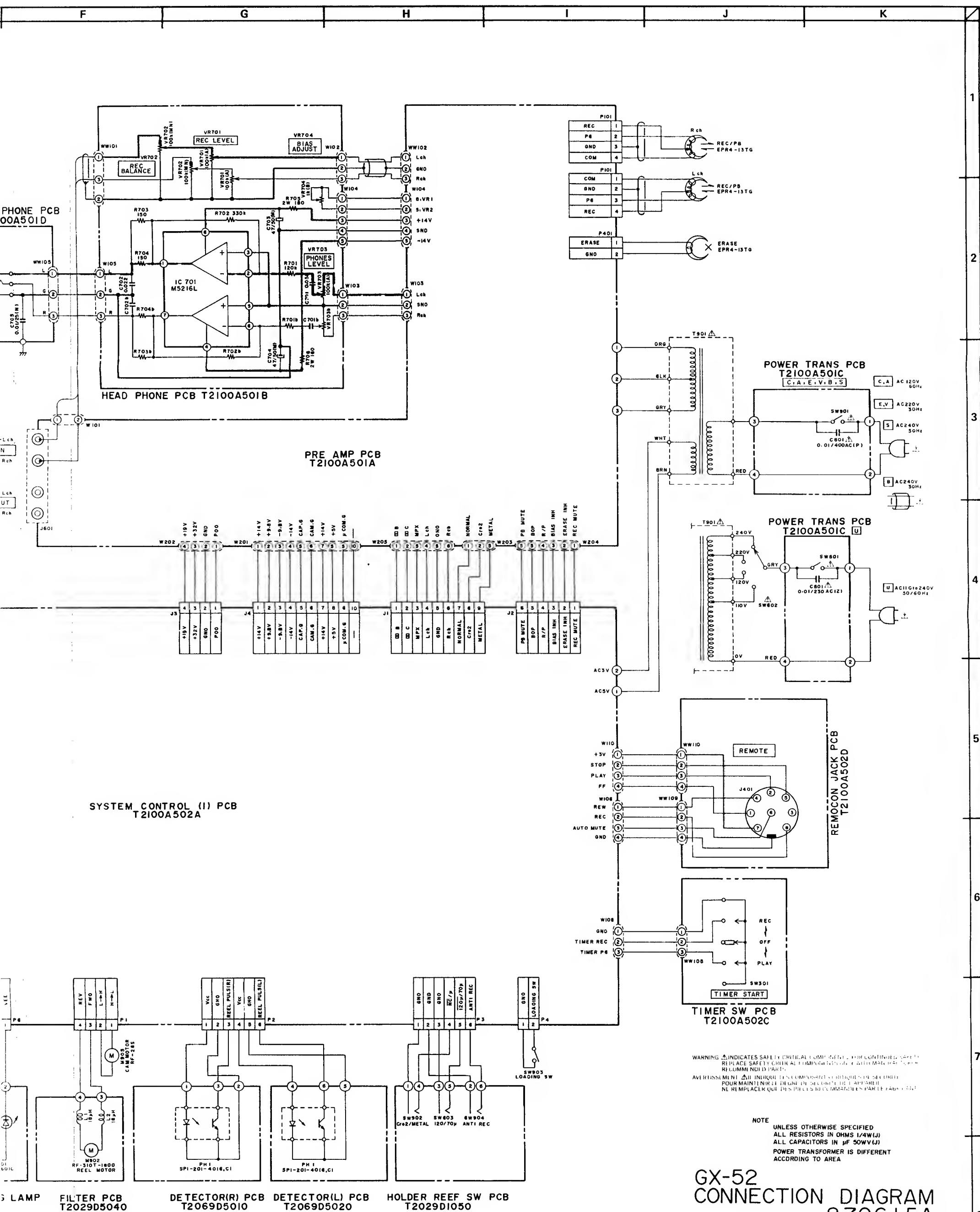
SYSTEM CONTROL (1) PCB
T2100A502A

— B (POWER SUPPLY) LINE
— REC SIGNAL LINE
— P.B SIGNAL LINE

HOUSING LAMP

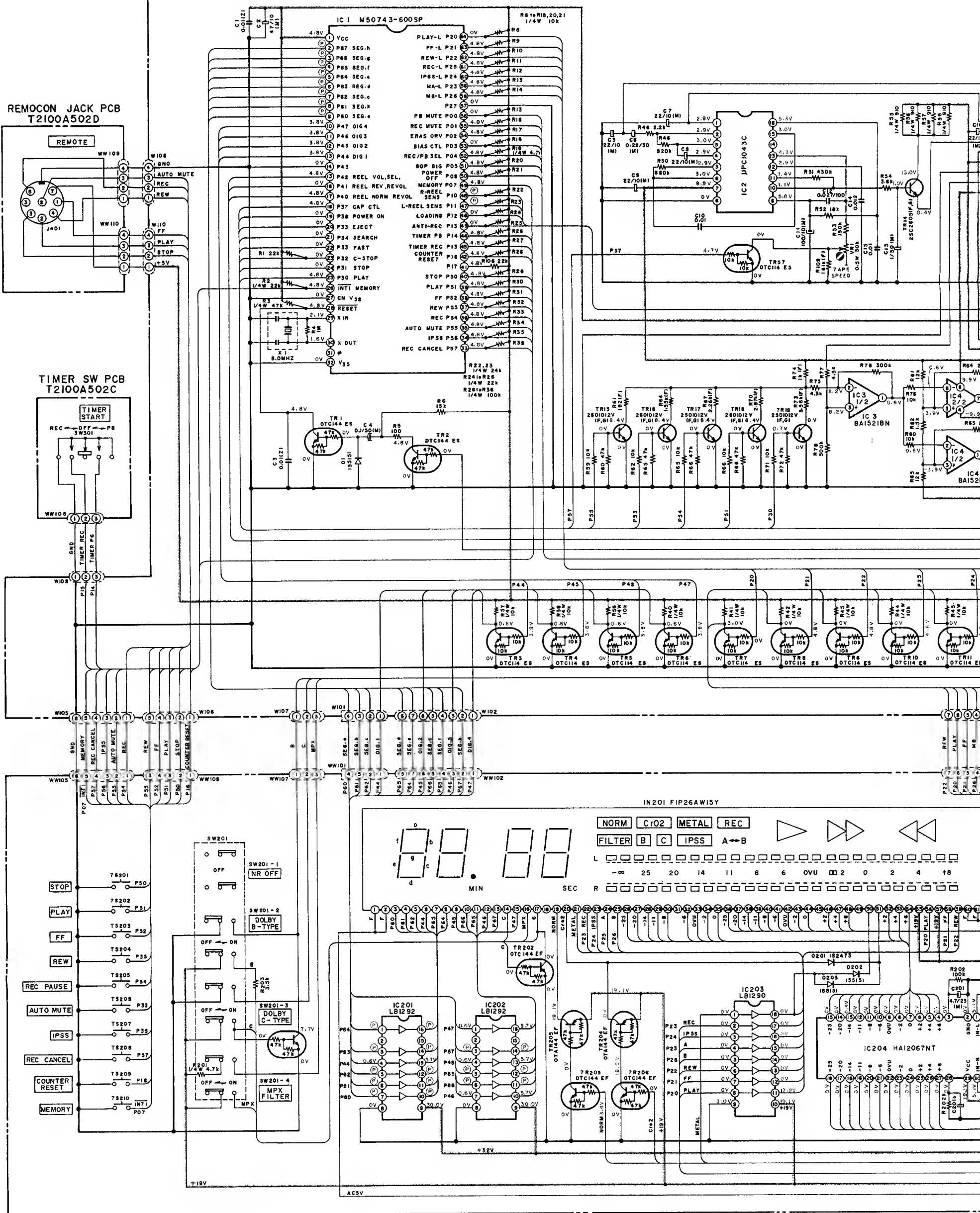
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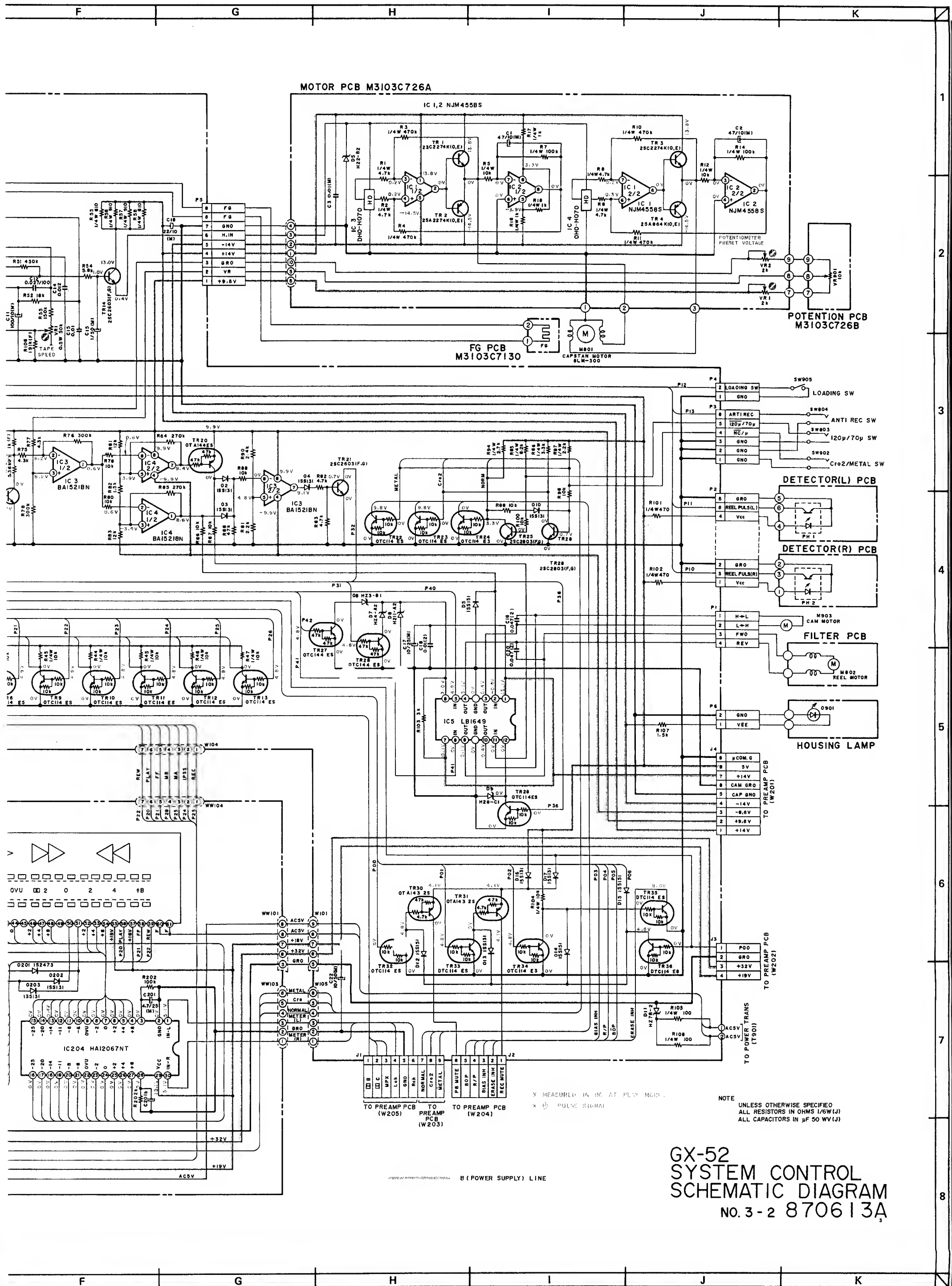
DETECTO
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GX-52

SYSTEM CONTROL (1) PCB T2100A502A





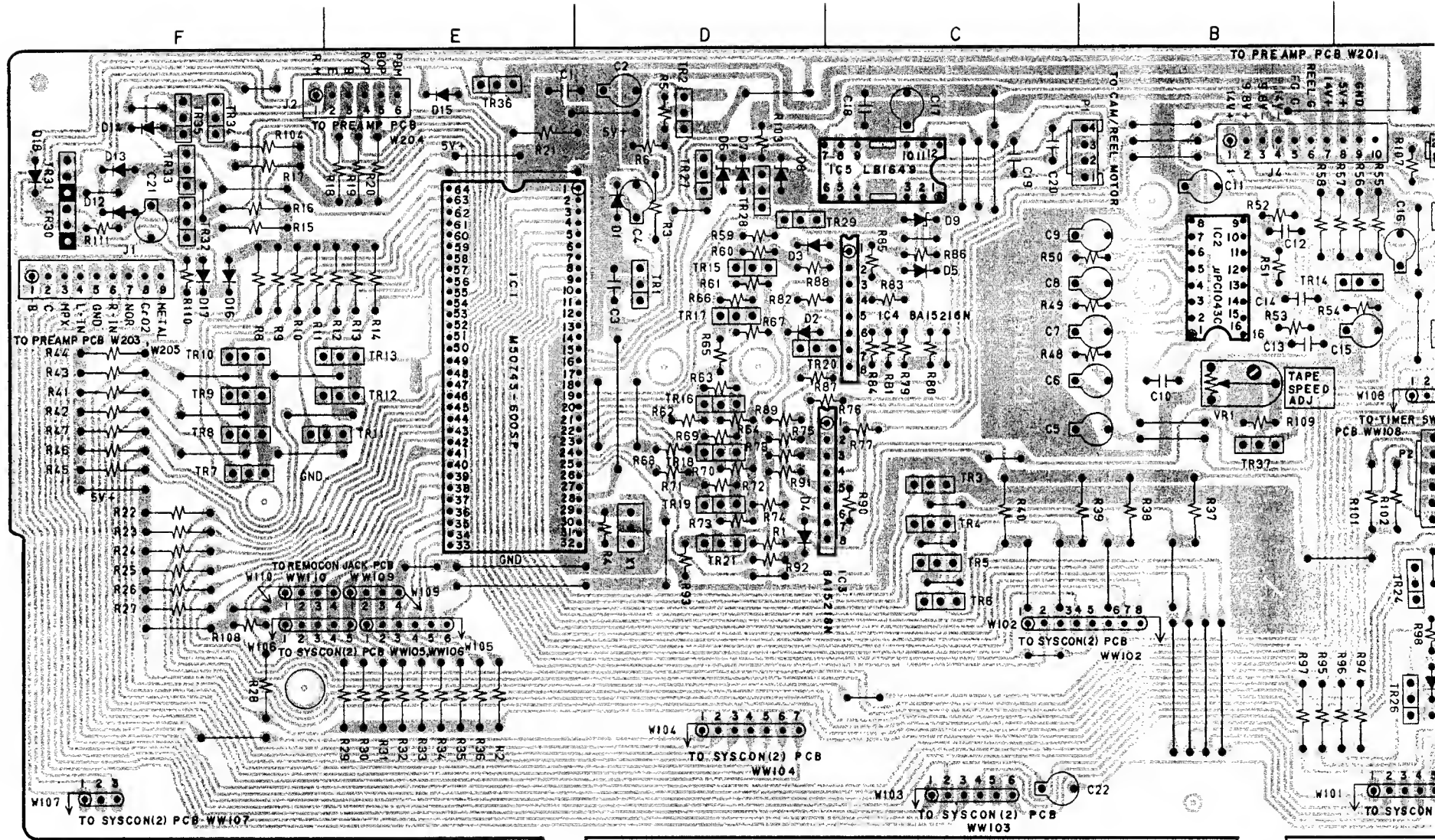
LOCATION OF COMPONENTS

IC
IC1...E2
IC2...B1
IC3...D2
IC4...C2
IC5...C1

TRANSISTOR
TR1...D2
TR2...D1
TR3...C2
TR4...C2
TR5...C3
TR6...C3
TR7...F2
TR8...F2
TR9...F2
TR10...F2
TR11...E2
TR12...E2
TR13...E2
TR14...A1
TR15...D1
TR16...D2
TR17...D2
TR18...D2
TR19...D2
TR20...D2
TR21...D2
TR22...A3
TR23...A3
TR24...A3
TR25...A3
TR26...A3
TR27...D1
TR28...D1
TR29...D1
TR30...F1
TR31...F1
TR32...F1
TR33...F1
TR34...F1
TR35...F1
TR36...F1
TR37...B2

CONNECTOR
W101...A3
W102...B3
W103...C3
W104...D3
W105...E3
W106...F3
W107...A3
W108...A2
W109...E3
W110...F3
J1...F2
J2...F1

2SC2603...TR14, TR21, TR25, TR26
2SD1012...TR15, TR16, TR17, TR18, TR19
DTC144...TR1, TR2, TR20, TR27, TR28
DTC114...TR3, TR4, TR5, TR6, TR7, TR8, TR9, TR10, TR11, TR12, TR13, TR22, TR23, TR24, TR29, TR32, TR33, TR34, TR35, TR36, TR37
DTA143...TR30, TR31

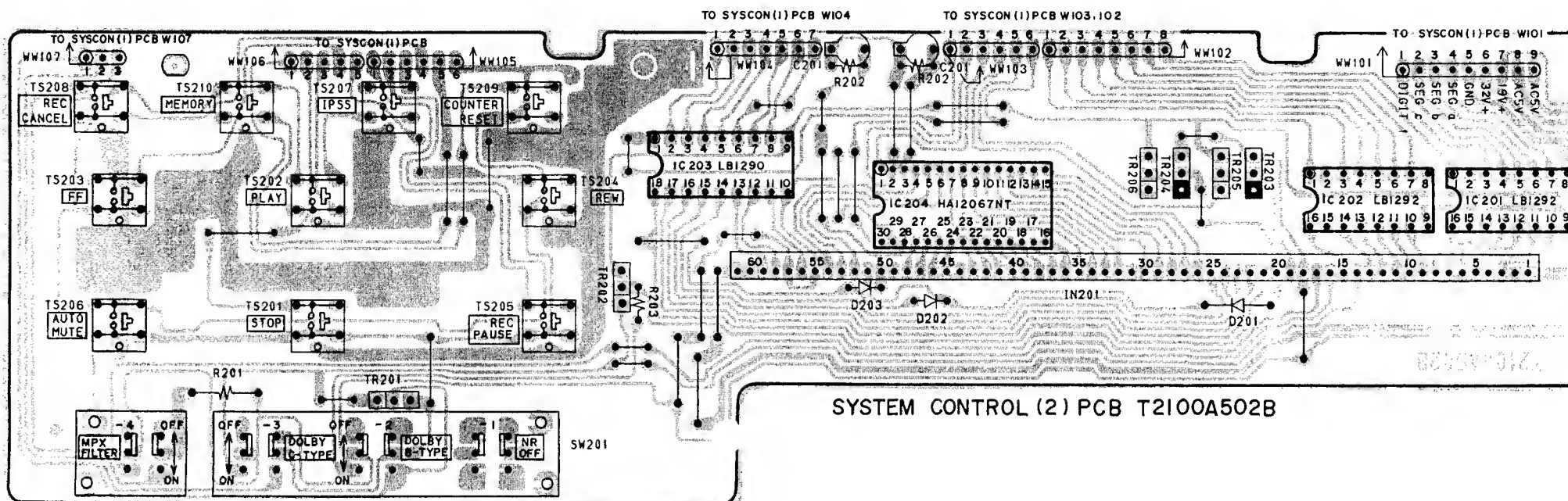


SYSTEM CONTROL (1) PCB T2100A502A

B
• • • = NPN TRANSISTOR
B
• • • = PNP TRANSISTOR



2SC2603
2SD1012
DTC144
DTC114
DTA143



LOCATION OF COMPONENTS

ICs
IC201...A1
IC202...A1
IC203...D1
IC204...C1

TRANSISTORS
TR201...E2
TR202...D2
TR203...B1
TR204...B1
TR205...B1
TR206...B1

CONNECTORS
W101...A1
W102...B1
W103...C1
W104...D1
W105...E1
W106...F1
W107...F1

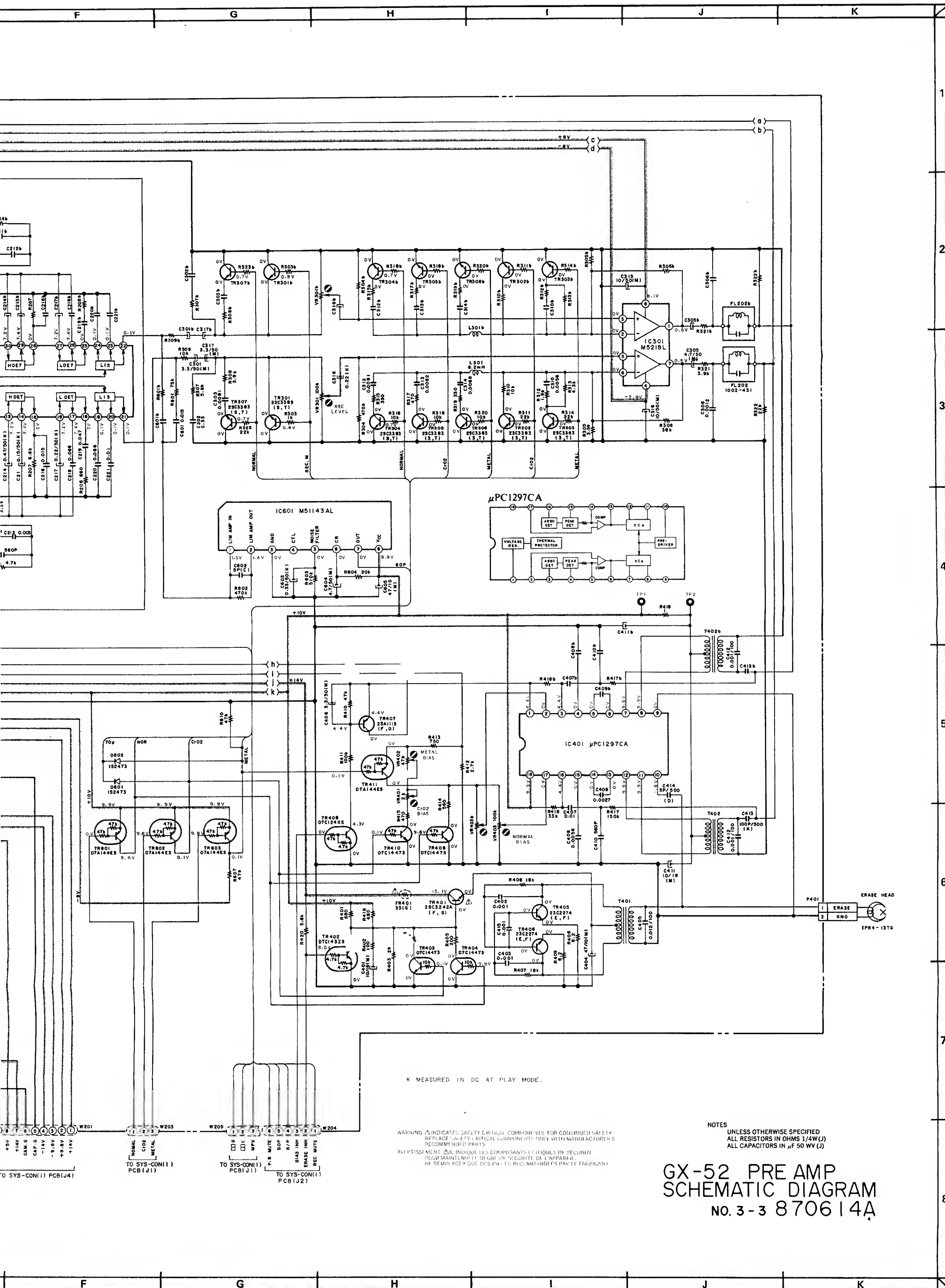
DTC144...TR201, TR202, TR205
TR206
DTA144...TR203, TR204

B C E
• • • = NPN TRANSISTOR
B C E
• • • = PNP TRANSISTOR



DTC144
DTA144





GX-52 PRE AMP
SCHEMATIC DIAGRAM
No. 3-3 870614A

